

Preliminary Amendment

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Title: MRAM MEMORY CELL WITH A REFERENCE LAYER AND METHOD FOR FABRICATING (As Amended)

IN THE ABSTRACT

Please replace the Abstract with the following rewritten paragraph:

Abstract

METHOD FOR FABRICATING A REFERENCE LAYER AND MRAM MEMORY CELL PROVIDED WITH A REFERENCE LAYER OF THIS TYPE AND METHOD FOR FABRICATING

Abstract

The invention relates to a method for fabricating a reference layer for MRAM memory cells and an MRAM memory cell equipped with a reference layer of this type. A reference layer of this type comprises two magnetically coupled layers having a different Curie temperature. When cooling from a temperature above the Curie temperature T_C^1 of the first layer (10) in an external magnetic field, the magnetization of the second layer (11) is oriented by a second-order phase transition along the field direction of the external magnetic field. Upon further cooling below the Curie temperature T_C^2 of the second layer (11), the latter is oriented antiparallel with respect to the first layer (10) as a result of the antiferromagnetic coupling between the two layers.

(Fig. 2A)